

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
17 July 2003 (17.07.2003)

PCT

(10) International Publication Number
WO 03/057381 A1

(51) International Patent Classification⁷: B09B 3/00, C05F 9/02, C02F 3/12, B02C 18/40

(21) International Application Number: PCT/KR03/00035

(22) International Filing Date: 9 January 2003 (09.01.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10-2002-0001929 12 January 2002 (12.01.2002) KR
10-2002-0038962 5 July 2002 (05.07.2002) KR
10-2002-0044285 26 July 2002 (26.07.2002) KR

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

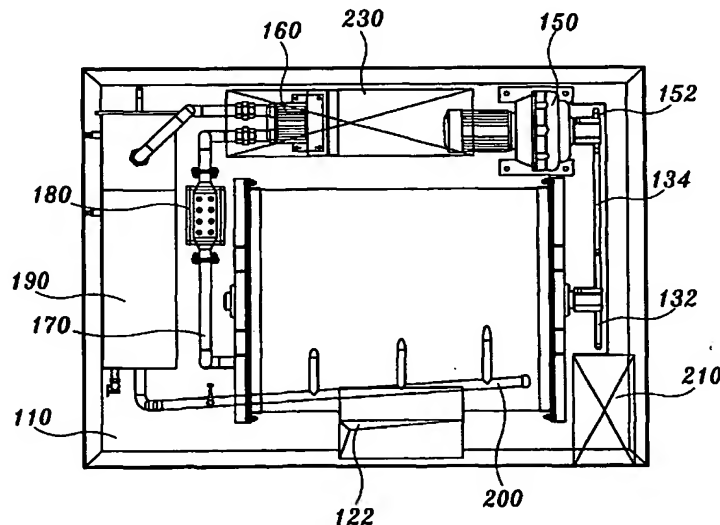
(71) Applicant and
(72) Inventor: KOH, Chun-Il [KR/KR]; 792-11, Bangbaebon-dong, Seocho-gu, 137-830 Seoul (KR).

Published:
— with international search report

(74) Agents: KIM, Hee-So et al.; 2F Daeho Building, 1502-12, Seocho 3-dong, Seocho-gu, 137-870 Seoul (KR).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DECOMPOSITION DEVICE OF ORGANIC WASTE AND AUTOMATIC CLEANING SYSTEM THEREOF



(57) Abstract: An organic waste decomposition device comprises a base frame (110), a cylindrical shell casing (120), a shaft (130) which is rotatably installed in the shell casing, a plurality of arm blades (140) which are engaged to the shaft, a driving motor (150) adapted to provide a rotational force to the shaft, a ring blower (160) which is adapted to supply air into the interior of the shell casing, an air pipe (170) which is adapted to connect the ring blower and a lower portion of the shell casing, a pre-heater (180) which is adapted to pre-heat the air supplied into the interior of the shell casing, a condenser (190) which liquifies the discharged vapor, a steam pipe (200) which connects an upper portion of the shell casing and the condenser, and a control box (210).

501,014



WO 03/057381 A1

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/KR/00/0035

CLASSIFICATION OF SUBJECT MATTER

IPC⁷: B09B 3/00; C05F 9/02; C02F 3/12; B02C 18/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁷: B02C; B09B; C05F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, WPI, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0860407 A2 (HOSAN CORPORATION) 26 August 1998 (26.08.98) <i>column 3, line 38 - column 8, line 12.</i>	1,4
A		3,5-10
Y	PATENT ABSTRACTS OF JAPAN [CD-ROM]; JP 2000-233166 A (AMANO CORP); 29 August 2000 (29.08.00) <i>abstract; fig. 1.</i>	1,4
A	JP 2000 202265 A (TADANO SANGYO) 25 July 2000 (25.07.00) & PATENT ABSTRACTS OF JAPAN [CD-ROM] <i>fig. 2-6.</i>	1,2
A	US 5622617 A (TSUSAKA et al.) 22 April 1997 (22.04.97) <i>column 3, line 66 - column 4, line 39.</i>	1,4,7
A	WO 01/15826 A1 (EARTHCLEAN CO., LTD) 8 March 2001 (08.03.01) <i>abstract; fig. 2.</i>	1,4,7

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

„A“ document defining the general state of the art which is not considered to be of particular relevance

„E“ earlier application or patent but published on or after the international filing date

„L“ document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

„O“ document referring to an oral disclosure, use, exhibition or other means

„P“ document published prior to the international filing date but later than the priority date claimed

„T“ later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

„X“ document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

„Y“ document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

„&“ document member of the same patent family

Date of the actual completion of the international search

7 March 2003 (07.03.2003)

Date of mailing of the international search report

26 March 2003 (26.03.2003)

Name and mailing address of the ISA/AT

Austrian Patent Office

Kohlmarkt 8-10; A-1014 Vienna

Facsimile No. 1/53424/535

Authorized officer

BAUER H.

Telephone No. 1/53424/466

INTERNATIONAL SEARCH REPORT

Internal Application No.

PCT/KR 03/00035

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5710042 A (SHINDO et al.) 20 January 1998 (20.01.98) <i>column 4, line 54 - column 5, line 46.</i></p> <p>----</p>	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/JP 03/00035

Patent document cited in search report			Publication date	Patent family member(s)			Publication date
EP	A2	860407	26-08-1998	KR	B1	205918	01-07-1999
EP	A3	860407	16-06-1999				
JP	A2	00202265	25-07-2000			none	
US	A	5622617	22-04-1997	CN	A	1116134	07-02-1996
				CN	B	1094392	20-11-2002
				DE	A1	19505058	17-08-1995
				DE	C2	19505058	07-05-1998
				GB	A0	9502547	29-03-1995
				GB	A1	2286825	30-08-1995
				GB	B2	2286825	11-02-1998
				HK	A1	1004598	27-11-1998
				JP	A2	7222965	22-08-1995
				KR	B1	139354	15-06-1998
				JP	A2	7222966	22-08-1995
				JP	A2	7227589	29-08-1995
				JP	A2	8057458	05-03-1996
				JP	B2	3121501	09-01-2001
				JP	A2	8173939	09-07-1996
				JP	B2	3121511	09-01-2001
US	A	5710042	20-01-1998	DE	A1	19530471	22-02-1996
				DE	C2	19530471	14-08-1997
				JP	A2	8057451	05-03-1996
				KR	B1	149616	17-08-1998
				JP	A2	8057452	05-03-1996
WO	A	115826				none	